

Date: Monday, 28/04/2008 9:08:20 AM
User: Linda Lacelle

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services	Drawing Name	A119 BUBBLE WINDOW			
Job Number	38829A	Part Number	D36242			
Estimate Number	12911	Drawing Number	D3624 REV. D			
P.O. Number	:	Project Number	N/A			
This Issue	28/04/2008	S.O. No.	:			
Prsht Rev.	NC	Drawing Revision	REV. D			
First Issue	11	Type	THERMOFORMING			
Previous Run	37199A	Material	:			
Written By	Due Date : 28/04/2008					Qty: 2 Um: Each
Checked & Approved By						
Comment	Est. A Thermoform in house 6/27/2007 DL Est B. Revised due to corrupt operating Program. 7/23/2007 DL Est C. Dwg. Rev. change 7/30/2007 Est. D. Dwg. Rev. Updated 4/25/2008					
Additional Product						
Job Number:						
Seq. #:	Machine Or Operation:	Description :				
1.0	MACRYLICS177	0.177" PLEXIGLAS G CLEAR CAST ACRYLIC SH				
						
Comment: Qty.: 10.0000 sf(s)/Unit Total : 20.0000 sf(s) 0.177" PLEXIGLAS G CLEAR CAST ACRYLIC SH						
1) Batch # <u>M107291</u>						
2.0	HAND FINISH TH	HAND FINISHING THERMOFORMING				
						
Comment: HAND FINISHING THERMOFORMING						
1) Cut Blanks to 30" by 48"						
3.0	THERMOFORMING	THERMOFORMING MACHINE				
						
Comment: THERMOFORMING MACHINE						
Thermoform as per Dwg. D3624 and Folio FTA 004						
Dwg. Rev. <u>D</u> Folio Rev. <u>E</u>						
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE				
						
Comment: INSPECT PARTS AS THEY COME OFF MACHINE						
1) Check Surface finish for undesired marks, voids, dimples etc. 2) Check depth of bubble to ensure conformity to drawing tolerances.						

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3624-2 PAR #: 111 Fault Category: Pad Thermofilm NCR: Yes No DQA: D Date: 08/04/29
 QA: N/C Closed: D Date: 08/04/29

		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08.04.28	5.	Did not seal properly. Vacuum valve open too much. <u>X1</u>	<u>D</u> <u>08/04/28</u>	Scrap & Replace. <u>B6 107291</u>	<u>D</u> , 08.04.28	<u>08/04/28</u>	<u>D</u> <u>08/04/28</u>	<u>08/04/29</u>
08.04.28	5.	Cracked white trimming Very small crack. <u>X1</u>	<u>D</u> <u>08/04/28</u>	Save for R&D to replace slow unit. Replace this unit for work order <u>B 107291</u>	<u>D</u> , 08.04.28	<u>08/04/28</u>	<u>D</u> <u>08/04/28</u>	<u>08/04/29</u>

NOTE: Date & initial all entries

Date: Monday, 28/04/2008 9:08:20 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: A119 BUBBLE WINDOW

Job Number: 38829A

Part Number: D36242

Job Number:



Seq. #: Machine Or Operation:

Description :

5.0 HAND FINISH TH

HAND FINISHING THERMOFORMING



Comment: HAND FINISHING THERMOFORMING

- 1) Trim to Finished Dimensions
- 2) Buff out any light scratches or blemishes
- 3) Etch in part number and batch number

DL, 08.04/28.

6.0 QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

DL 08.04.28,

7.0 QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

- 1) Visually inspect for clarity, and proper formation.

5/08/28 (2)

8.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

8/4/28

510

9.0 QC21

FINAL INSPECTION/W/O RELEASE



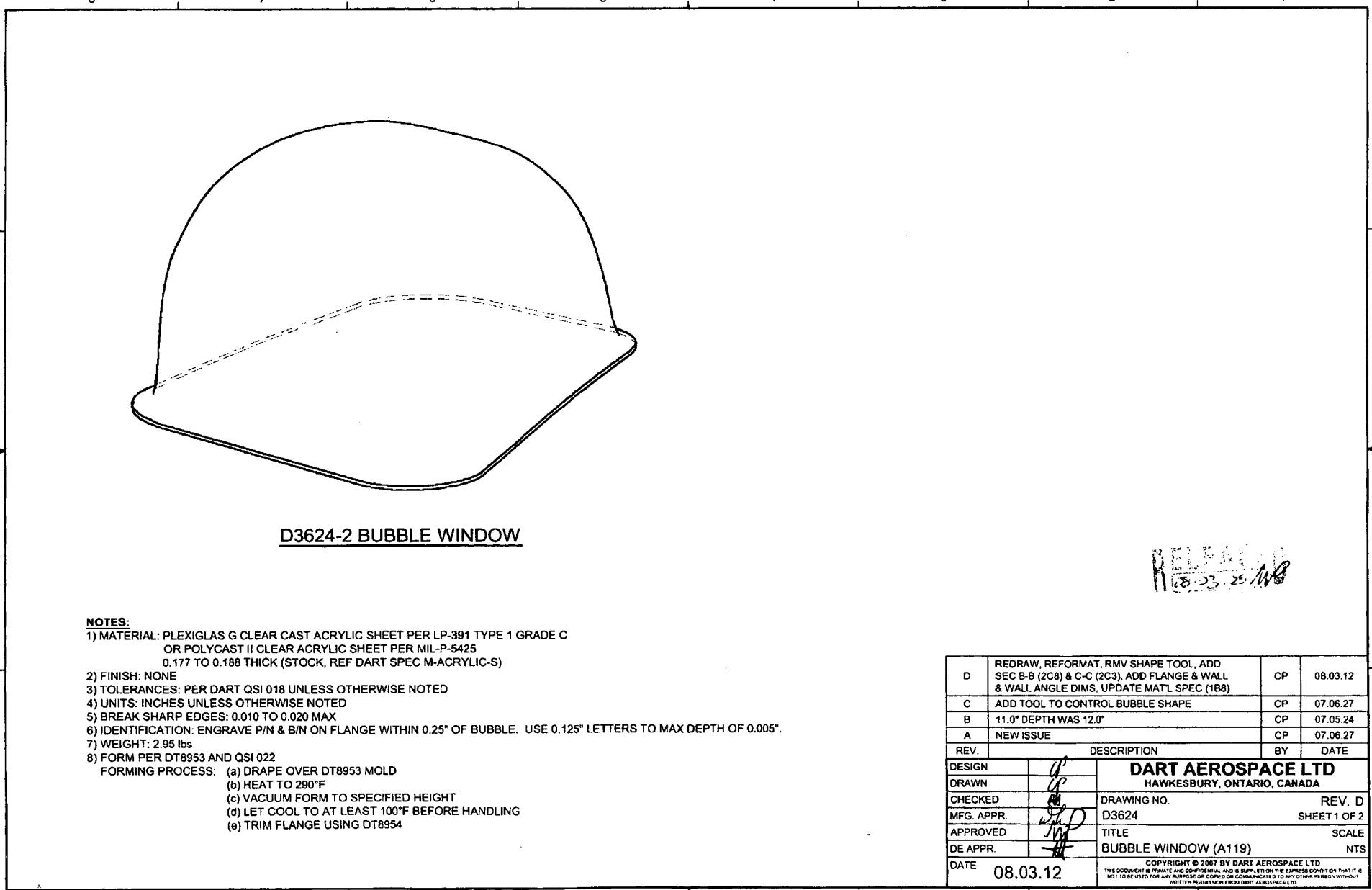
08/04/28 (2)

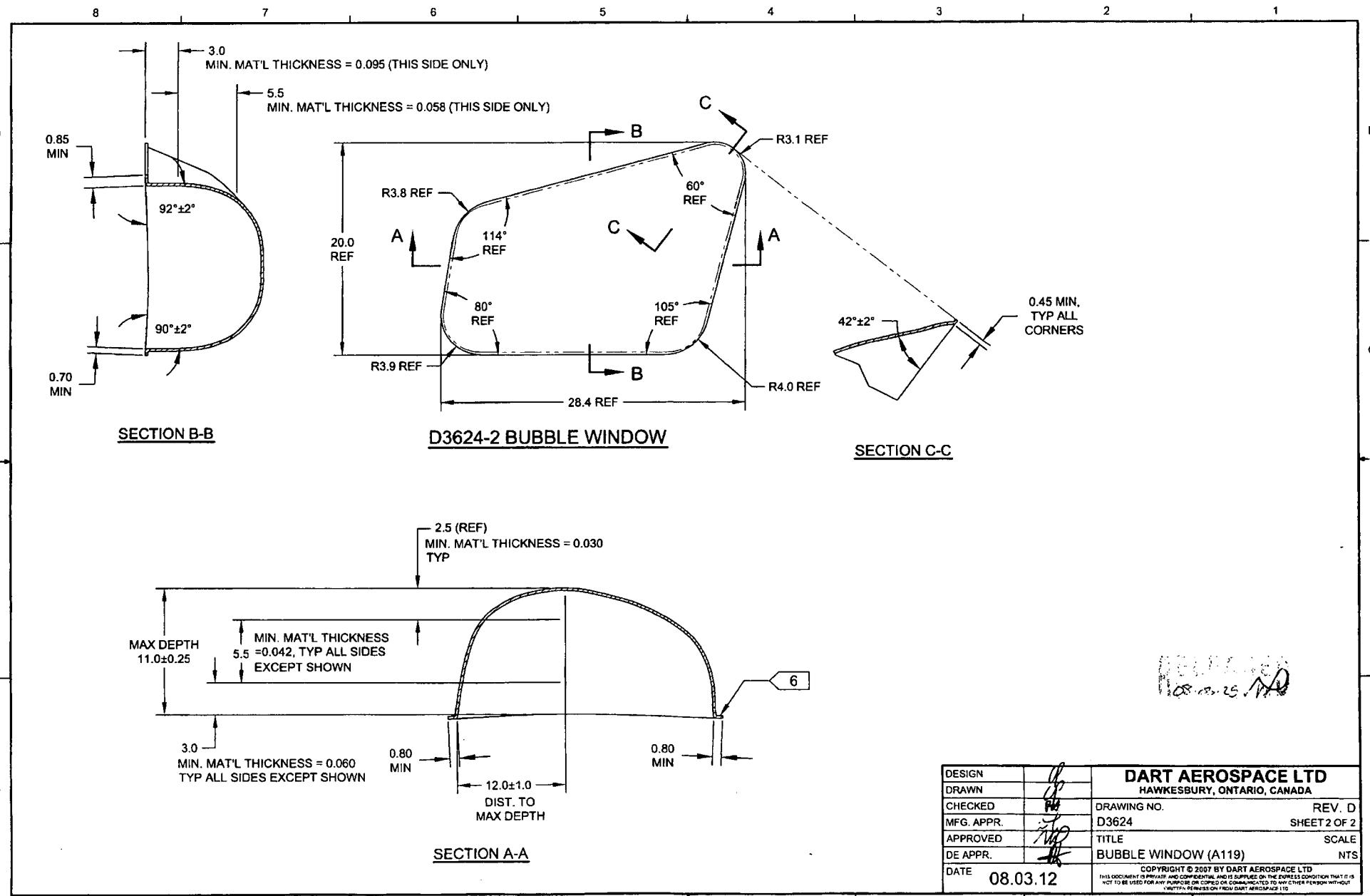
Comment: FINAL INSPECTION/W/O RELEASE

MF 08-04-28

Job Completion







DART AEROSPACE LTD	WORK ORDER:	38829A
Description: <i>449 Window</i>	Part Number:	53624-2 <i>TEN 1</i>
Inspection Dwg: <i>D3624</i> Rev: <i>D</i>		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

(Step 4) Thermoforming Visual Inspection Sign-off

Description	Initials
Depth of bubble within tolerances	<i>DL</i>
Acceptable shape definition	<i>DL</i>
Free of visual flaws (bumps, cracks, voids, etc.)	<i>DL</i>

(Step 6) Trimming FAI Checklist

Inspect dimensions highlighted on inspection sheet drawing _____ Rev. _____ and record below

Drawing	Tolerance	Actual	Accept	Reject	Method of Inspection	Comments
Dimension		Dimension				
depth of bubble 11"	+/- 0.25"	10.825	✓		TAPE	
leading edge at 3" high	0.095" min thick	0.111	✓		US	
leading edge at 8.5" high	0.058" min. thick	0.065	✓		US	
trailing edge at 3" high	0.060" min thick	0.108	✓		US	
trailing edge at 8.5" high	0.042" min thick	0.059	✓		US	
top 2.5" of bubble	0.030" min thick	0.041	✓		US	
leading edge angle 92°	+/- 0.2°	89°	✓		Surface	
trailing edge angle 90°	+/- 0.2°	89°	✓		Surface	
width leading edge flange	0.85" min	0.93"	✓		CALIBER	
width trailing edge flange	0.70" min.	0.87"	✓		caliper	

Measured by: <i>DL</i>	Audited by: <i>D</i>	Prototype Approval: <i>IP</i>
Date: <i>08/04/18</i>	Date: <i>08/04/18</i>	Date: <i>08.04.18</i>

Rev	Date	Change	Revised by	Approved
		New Issue		

DART AEROSPACE LTD	WORK ORDER:	38828A
Description: A119 Bubble Window.	Part Number:	D3624-2
Inspection Dwg: D3624 Rev: D		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

(Step 4) Thermoforming Visual Inspection Sign-off

Description	Initials
Depth of bubble within tolerances	DT
Acceptable shape definition	DT
Free of visual flaws (bumps, cracks, voids, etc.)	DT

(Step 6) Trimming FAI Checklist

Inspect dimensions highlighted on inspection sheet drawing _____ Rev. _____ and record below

Drawing	Tolerance	Actual	Accept	Reject	Method of Inspection	Comments
Dimension		Dimension				
depth of bubble 11"	+/- 0.25"	10.75"	✓		TAPE	
leading edge at 3" high	0.095" min thick	0.097	✓		US	
leading edge at 8.5" high	0.058" min. thick	0.026	✓		US	
trailing edge at 3" high	0.060" min thick	0.082	✓		US	
trailing edge at 8.5" high	0.042" min thick	0.057	✓		US	
top 2.5" of bubble	0.030" min thick	0.039	✓		US	
leading edge angle 92°	+/- 0.2°	90°	✓		TAPE	
trailing edge angle 90°	+/- 0.2°	89°	✓		TAPE	
width leading edge flange	0.85" min	0.073	✓		Calliper	
width training edge flange	0.70" min.	0.082	✓		Calliper	

Measured by:	DT	Audited by:	DT	Prototype Approval:	DT
Date:	08.04.28	Date:	08/04/28	Date:	08.04.28

Rev	Date	Change	Revised by	Approved
		New Issue		